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Inaugural Dissertation on Cynanche Trachealis

Wm. Baker Scott — Virga.

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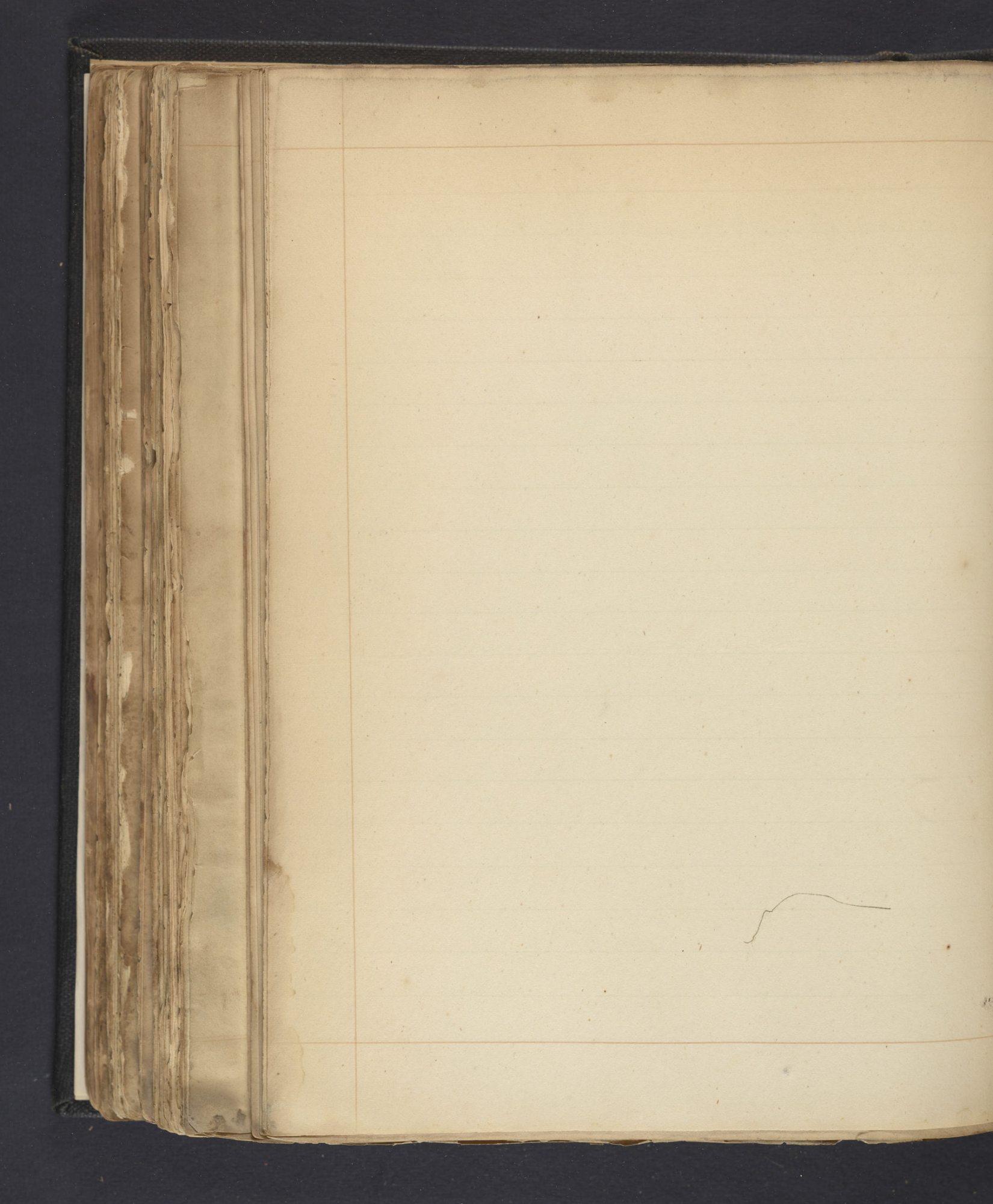
William B. Scott
Eagle Hotel
Corner of 9th and Market

Baker



Cynanche Trachealis

In presenting the following thesis to the Faculty of medicine, I disclaim all pretensions to originality. The pathology of the disease which is the subject of it, is so perfectly understood at the present day, and the consequent treatment is so well settled, that perhaps but little remains to be added to either. At all events my recent commencement of a course of medical studies, together with the venerable authorities which it is in my power to refer to, will silence completely any wish I might otherwise have to depart from the beaten track.

This name says Cullen has been given to an inflammation of the glottis, larynx, and upper part of the trachea, whether it affects the membranes of these parts or the muscles adjoining.

Dr. Home of Edinburgh in the year 1765, published an essay on croup, and the credit has generally been conceded to him of having originally described this disease, and giving a distinct account of it; but Dr. Chapman says the credit is not due to Home, and that in one of the earliest numbers of the transactions of the royal society of London,

he has found a full account of the complaint illustrated by dissection.

Cynanche Trachealis is for the most part confined to an early period of life, occuring between the first and fifth year. Dr. Cullen says it seldoms attacks infants till they have been weaned, and in no instance after the twelfth year. On this point Dr. Cullen is certainly mistaken, for in this country it not unfrequently attacks children in the first month and sometimes adults.

I remember hearing Dr. Walker of Virginia relate the case of a man, thirty eight years of age who fell a victim to it. I also remember hearing Dr. Chapman men-tion in his lectures, that there was a family of adults in this city to the individuals of which, he was frequently called in consequence of the the attack of Croup.

A Child once affected with it, is very subject to a return of the complaint. I know a family of four boys in Virginia, that are so subject to it, that when they have been exposed to cold damp weather, their parents expect an accession and resort to immediate means for their relief.

It is the opinion of the most respectable medical men of the present day, that Croup is not contagious as it was supposed by preceeding authors.

It is said, this disease sometimes prevails as an epidemic. If it does not prevail as such, we have the greatest reason to beleive it is endemical, being sometimes circumscribed within very narrow limits. Dr. Chapman says it is hardly known in Edinburg, while a little sea-port Town which stands about a mile off, is so desolated by the ravages of Croup, that it is almost impossible for the inhabitants to raise their Children, and the same appears to be the case as regards Baltimore; in that City, this disease is of very rare occurrence, while at Fells point it is a common complaint.

Causes. It appears to be a general opinion, that Croup arises from exposure to a cold, moist atmosphere, and therefore prevails more in the winter and spring, than in any other season of the year.

The disease under consideration, should be divided into spasmodic and inflammatory. Dr. Thomas objects to

this division, and says it is always to be considered as arising from inflammation. Dr. Cullen gives it as his opinion, that from the nature of the symptoms, and from the dissections of the bodies of persons who had died of this Complaint, there is no doubt of its being of an inflammatory nature. It does not always ~~always~~ run the course of an inflammatory affection, but frequently produces such an obstruction to the passage of air, as to suffocate immediately. In all these cases it must partake of the spasmodic character. Dr. Chapman says, the early symptoms accord with this view of its pathology, and dissections confirm its correctness. When a child dies a very short time after being attacked with Croup, no appearances of inflammation are discovered by dissection.

Symptoms. In the commencement of an attack of Croup, the voice is hoarse, and a hard dry cough, by some writers compained to the sharp barking of a dog, takes place. At this stage of the disease, there is more or less fever, a considerable degree of anxiety, the patent is very restless, whines cries frets (if a child) and appears to be exceedingly uneasy.

In the advanced stage of the disease there appears

to be an interrupted circulation in the lungs, owing to the oppressed state of these organs. There is a great alteration in the countenance, and a circumscribed flush on the cheek, the eyes are prominent and inflamed, and the pupils widely dilated. The respiration at this stage of the complaint becomes very laborious with a full pulse, but as the patient sinks the respiration becomes more tranquil, and the pulse weak.

Diagnosis The croup may be distinguished from acute asthma, by the following diagnostics. In the former, the cough is frequently ringing in our ears, whereas in the latter there is little or no cough. In croup there is seldom any remission, whereas in the acute asthma it is one of the most striking phenomena of the disease, and it is attended with some evacuations such as belching vomiting or purging.

In croup the pulse is strong with much febrile heat, the urine high coloured, and the voice shrill and small. In acute asthma the pulse although perhaps equally quick, is less full, the urine is limpid, and the voice is croaking and deep.

Treatment Dr Chapman gives it as his opinion, that no practical difference results admitting the disease to be either spasmodic or inflammatory. His mode of treating this complaint, I shall state believing it to be the best I can adduce.

I always says he, commence with endeavouring to vomit the patient freely, and for this purpose he prefers the Tartar Emetic, taken at short intervals. At the same time, he directs the patient to be put into a warm bath and continued in it for ten or fifteen minutes. This he considers a highly useful remedy, as it hardly ever fails to promote the operation of the emetic and not unfrequently removes the disease.

Should the emetic not operate, or if it operates, and does not releive the patient, his practice is to bleed copiously and repeat the warm bath and emetic. He says that they are the most obstinate cases that will not yield to this treatment. Some cases however continue with little or no abatement of symptoms in despite of the remedies employed. Under these circumstances, Dr. Chapman directs topical bleeding by cups and leeches, and after the inflammation has subsided apply a blister or sinapism to the extremities,

or from one ear to the other.

If the remedies already mentioned fail to give relief, and the symptoms are very alarming, bleed ad deliquium animi Dr. Chapman declares that when pushed to this extent V.S. has been universally successfull. He says that in his own practice or in that of the practitioners of this City, he has not known one solitary instance where the remedy failed. The moment says he, that syncope is induced by copious blood-letting the hoarseness, Cough, impeded respiration, all immediately disappeared.

The disease being broken, it is recommended to administer Calomel not in small and repeated doses but in the largest possible quantity, in order that it may actively purge. Dr Chapman says at this particular stage of the complaint, evacuations from the alimentary canal, carry off the lingering symptoms, obviate a relapse, and confirm convalescence.

The winter previous to my attending a course of medical lectures, I witnessed the treatment of several cases of croup on the plan I have mentioned, but in

neither case was it necessary to push the remedies to that extent, which Dr Chapman says they should be in some cases.

If cough and hoarseness, together with tightness of the chest, and difficulty of respiration remain, then it is recommended to employ expectorants, and for this purpose the polygala seneka is preferred.

This article was originally brought into the treatment of this disease, by Dr. Archer of Maryland. It appears he used it in every stage and form of the disease. He sometimes prescribed it as an emetic, and under other circumstances as an expectorant.

As an emetic, I do not recollect to have seen the seneka employed, but it is a very valuable expectorant. This I can assert from actual observation, having seen it frequently used in the almshouse for this purpose. The prevalent opinion is, that it should be restricted to the secondary stage of the complaint under consideration.

To overcome hoarseness or other consequences of the disease, the seneka is said to be exceedingly useful. The powder is sometimes given, but the saturated decoction

is prefered.

The practice which I have detailed, is applicable chiefly to the early stage of the complaint. At this period the disease is spasmodic or inflammatory.

As the Cases which come under my observation, were immediately relieved, the subsequent treatment was very simple. But it appears from what I can learn from the Authors I have perused, and from the lectures of the present professor, that if the disease is permitted to continue for eight or ten hours, or sometimes even for a shorter period, the complaint extends to the bronchiæ and sometimes into the substance of the lungs. When the disease runs on to this extent, there is a vast secretion of mucus and phlegm, and in this stage it assumes the character of peripneumonia notha.

The first object at this critical conjuncture is to relieve the lungs, and to accomplish this it is recommended to put the patient in a warm bath, and in this situation administer means to produce copious vomiting, and for this purpose the Sulphas Zinci is

highly recommended, or any very active emetic.

If it be thought adviseable from the state of the pulse to draw blood, the practitioner should be very cautious not to reduce the system below the point of reaction. When it is not admissable to draw blood from the arm, we may resort to cups and leeches.

Blisters are recommended to be applied over the whole chest.

It is said in some cases the disease is so urgent as not to allow time for the blisters to draw, and as a substitute cloths wrung out of boiling water have been recommended. Lint dipped in a decoction of cantharides with spirits of turpentine is also recommended.

The subsequent treatment consists in the use of expectorants, and of these the antimonial wine oxymel or vinegar of squills, a decoction of seneka, either alone or in combination will answer very well.

Calomel at this stage of the complaint is highly recommend. It is given with a view to enable the bronchial vessels to releive themselves from their load of mucus.

Calomel as a remedy in cynanche trachealis was originally introduced into the treatment of this affection in the year 1770, and from what I can learn the credit is due to Dr. Kuhn late of this City. I have been informed, that it is the practice of some of the European physicians to trust exclusively to it, in the treatment of Croup. Dr. Chapman says he has seen in the Edinburgh hospital from ʒii to ʒiii of Calomel given in the course of twenty four hours to a Child two or three years old.

It is not my intention, to detail the treatment recommended by those who trust principally to Calomel in this complaint, not only in consequence of the high standing of Dr. Chapman who opposes it, but also from a wish to be as brief as possible. However, before finishing my short essay, I may observe that it is understood to be the practice of Dr. Physick to trust exclusively to it in the treatment of the disease under consideration, and I have no hesitation in saying, I believe the practice a good one. Because for a youth of my age and experience not to consider the practice as safe after being recommended

by a man who is respected through the world, would be presumption in the highest degree. But when there are such opposite statements from the men I have mentioned, the student should content himself with a belief that they are all right, but pursue the practice he is most devoted to.

Dr. Chapman therefore as a beloved preceptor, and a man who has imparted so much useful knowledge to me, would induce me first to try the practice recommended by him, particularly as I have before stated, that it has proved successful in two cases within my own observation, though in neither case was it necessary to push the remedies very far.

As respects the membrane which is sometimes found in the larynx, I shall content myself with saying, it is the opinion of Dr. Chapman that the disease does not depend upon this adventitious membrane. If the disease does not depend on the membrane I cannot see the necessity of performing the operation for its extraction as some authors have recommended.

The professor of the practice believes that even if the membrance were entirely removed, the disease would still

remain, and that the fatality of croup arises not so much from the inherent difficulty of treatment, as from the inert practice which is generally adopted.

An opinion almost universally prevails, that children owing to an extreme delicacy of constitution, cannot bear any vigorous impressions from remedies.

Children recover from injuries, and surgical operations much sooner than adults.

Dr. Chapman says, as long as there are indications of life however discouraging appearances may be, we should never consider the cases of acute disease in children, as altogether desperate.